

# Git & Heroku

## Node.js

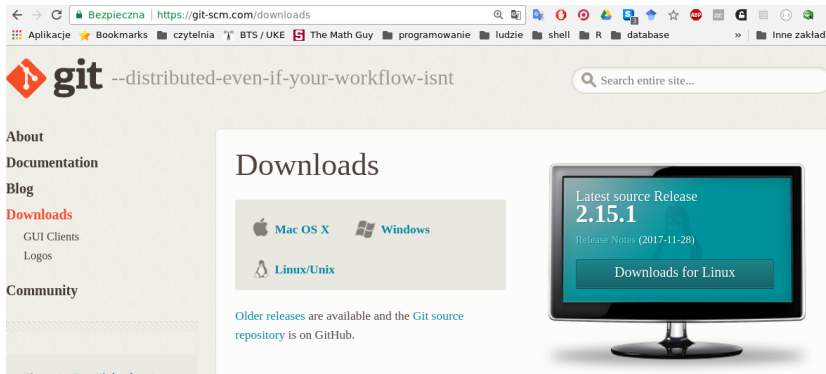
Dr inż. Michał Pierzchalski  
`pierzcham@fizyka.umk.pl`

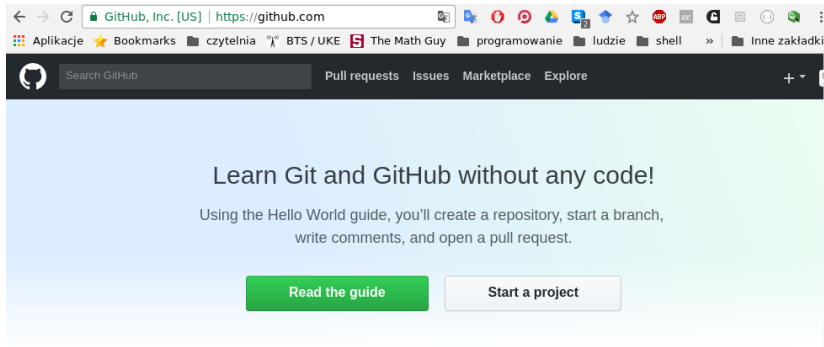
20-12-2017

```
const express = require('express');
const hbs = require('hbs');

let app = express();
app.set('view engine', 'hbs');
app.get('/', function (req, res) {
  res.render('index.hbs');
});

app.listen(3000, () => {
  console.log('App listening on port 3000!');
});
```





## Checking for existing SSH keys

MAC | WINDOWS | LINUX

Before you generate an SSH key, you can check to see if you have any existing SSH keys.

**Note:** DSA keys were deprecated in OpenSSH 7.0. If your operating system uses OpenSSH, you'll need to use an alternate type of key when setting up SSH, such as an RSA key. For instance, if your operating system is MacOS Sierra, you can set up SSH using an RSA key.

- 1 Open Terminal.
- 2 Enter `ls -al ~/.ssh` to see if existing SSH keys are present:

```
$ ls -al ~/.ssh
# Lists the files in your .ssh directory, if they exist
```

- 3 Check the directory listing to see if you already have a public SSH key.

## Generating a new SSH key

1 Open Terminal.

2 Paste the text below, substituting in your GitHub email address.

```
$ ssh-keygen -t rsa -b 4096 -C "your_email@example.com"
```

This creates a new ssh key, using the provided email as a label.

```
Generating public/private rsa key pair.
```

3 When you're prompted to "Enter a file in which to save the key," press Enter. This accepts the default file location.

```
Enter a file in which to save the key (/home/you/.ssh/id_rsa): [Press enter]
```

4 At the prompt, type a secure passphrase. For more information, see ["Working with SSH key passphrases"](#).

```
Enter passphrase (empty for no passphrase): [Type a passphrase]  
Enter same passphrase again: [Type passphrase again]
```

## Adding your SSH key to the ssh-agent

Before adding a new SSH key to the ssh-agent to manage your keys, you should have [checked for existing SSH keys](#) and [generated a new SSH key](#).

- 1 Start the ssh-agent in the background.

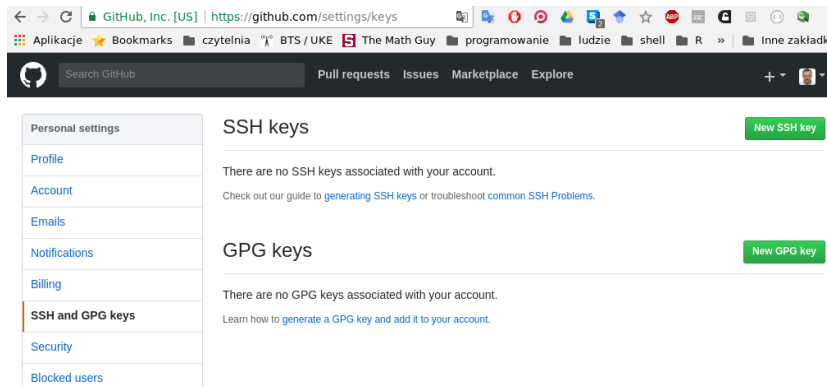
```
$ eval "$(ssh-agent -s)"  
Agent pid 59566
```

- 2 Add your SSH private key to the ssh-agent. If you created your key with a different name, or if you are adding an existing key that has a different name, replace `id_rsa` in the command with the name of your private key file.

```
$ ssh-add ~/.ssh/id_rsa
```

- 3 Add the SSH key to your GitHub account.

# Dodawanie klucza SSH do github



The screenshot shows the GitHub web interface. The browser's address bar displays the URL `https://github.com/settings/keys`. The page header includes the GitHub logo, a search bar, and navigation links for Pull requests, Issues, Marketplace, and Explore. On the left, a sidebar lists settings categories: Personal settings, Profile, Account, Emails, Notifications, Billing, SSH and GPG keys (which is highlighted), Security, and Blocked users. The main content area is titled 'SSH keys' and features a 'New SSH key' button. Below the title, it states 'There are no SSH keys associated with your account.' and provides a link to a guide on generating SSH keys. A similar section for 'GPG keys' follows, also with a 'New GPG key' button and a message indicating no keys are associated with the account.

Personal settings

- Profile
- Account
- Emails
- Notifications
- Billing
- SSH and GPG keys**
- Security
- Blocked users

## SSH keys

New SSH key

There are no SSH keys associated with your account.

Check out our guide to [generating SSH keys](#) or troubleshoot [common SSH Problems](#).

## GPG keys

New GPG key

There are no GPG keys associated with your account.

Learn how to [generate a GPG key](#) and add it to your account.



# Kopiowanie publicznego klucza ssh

**Note:** DSA keys were deprecated in OpenSSH 7.0. If your operating system uses OpenSSH, you'll need to use an alternate type of key when setting up SSH, such as an RSA key. For instance, if your operating system is MacOS Sierra, you can set up SSH using an RSA key.

## 1 Copy the SSH key to your clipboard.


If your SSH key file has a different name than the example code, modify the filename to match your current setup. When copying your key, don't add any newlines or whitespace.

```
$ sudo apt-get install xclip
# Downloads and installs xclip. If you don't have `apt-get`, you might need to


$ xclip -sel clip < ~/.ssh/id_rsa.pub
# Copies the contents of the id_rsa.pub file to your clipboard
```

**Tip:** If `xclip` isn't working, you can locate the hidden `.ssh` folder, open the file in your favorite text editor, and copy it to your clipboard.

# Dodawanie klucza SSH do github

 Search GitHub

Pull requestsIssuesMarketplaceExplore

+ ▾ 

Personal settings

Profile

Account

Emails

Notifications

Billing

**SSH and GPG keys**

Security

Blocked users


Repositories

Organizations

## SSH keys

New SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

 SSH

**ThinkPad**  
**Fingerprint:** 28:05:17:39:47:1e:c7:dd:f2:7b:e3:da:77:2b:75:b7  
Added on 30 Nov 2017  
Never used — Read/write

Delete

Check out our guide to [generating SSH keys](#) or troubleshoot [common SSH Problems](#).

## GPG keys

New GPG key

There are no GPG keys associated with your account.

Learn how to [generate a GPG key and add it to your account](#).

# Testowanie połączenia

## 2 Enter the following:

```
$ ssh -T git@github.com  
# Attempts to ssh to GitHub
```

You may see one of these warnings:

```
The authenticity of host 'github.com (192.30.252.1)' can't be established.  
RSA key fingerprint is 16:27:ac:a5:76:28:2d:36:63:1b:56:4d:eb:df:a6:48.  
Are you sure you want to continue connecting (yes/no)?
```

```
The authenticity of host 'github.com (192.30.252.1)' can't be established.  
RSA key fingerprint is SHA256:nThbg6kXUpJWGl7E1IGOCspRomTxdCARLviKw6E5SY8.  
Are you sure you want to continue connecting (yes/no)?
```

**Note:** The example above lists the GitHub IP address as 192.30.252.1. When pinging GitHub, you may see a range of IP addresses. For more information, see ["What IP addresses does GitHub use that I should whitelist?"](#)

## 3 Verify that the fingerprint in the message you see matches one of the messages in step 2, then type :

```
Hi username! You've successfully authenticated, but GitHub does not  
provide shell access.
```

# Zakładanie nowego repozytorium na Github

The screenshot shows the GitHub homepage in a web browser. The address bar displays 'https://github.com'. The browser's bookmark bar includes 'Aplikacje', 'Bookmarks', 'czytelnia', 'BTS / UKE', 'The Math Guy', 'programowanie', 'ludzie', 'shell', 'R', and 'Inne zakładki'. The GitHub navigation bar features the search bar, 'Pull requests', 'Issues', 'Marketplace', and 'Explore' links. The main content area has a light blue background with the heading 'Learn Git and GitHub without any code!' and the text 'Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request.' Below this are two buttons: 'Read the guide' (green) and 'Start a project' (grey). On the left, the 'Browse activity' tab is selected, showing repository activity. Two entries are visible: 'chudej pushed to development in chudej/NPR' (an hour ago) and 'chudej pushed to development in chudej/NPR' (6 hours ago). On the right, there is a notification for 'Use any theme with GitHub Pages' and a 'Your repositories' section with a 'New repository' button.

← → ↻ GitHub, Inc. [US] | https://github.com

Aplikacje ★ Bookmarks czytelnia BTS / UKE The Math Guy programowanie ludzie shell R » Inne zakładki



Search GitHub Pull requests Issues Marketplace Explore



## Learn Git and GitHub without any code!


Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request.

[Read the guide](#) [Start a project](#)

Browse activity Discover repositories


 **chudej** pushed to `development` in **chudej/NPR** an hour ago  
 48dd568 added not fully working checkboxes

 **chudej** pushed to `development` in **chudej/NPR** 6 hours ago  
 8f728h04 merged channing title


 **Use any theme with GitHub Pages** ✕  
You can now use any of the hundreds of community-curated themes on GitHub.com to change the look and feel of your GitHub Pages site.  
[View 4 new broadcasts](#)

Your repositories 0 [New repository](#)

# Zakładanie nowego repozytorium na Github

 Search GitHub

Pull requestsIssuesMarketplaceExplore

+ 

---



## Create a new repository

A repository contains all the files for your project, including the revision history.

---

Owner


Repository name

 fizykaumk / psw 


Great repository names are short and memorable. Need inspiration? How about **scaling-robot**.

**Description** (optional)

---

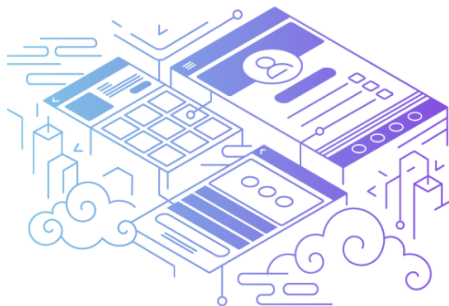
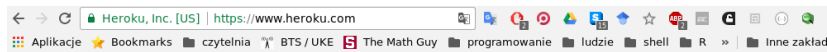
☒  **Public**

Anyone can see this repository. You choose who can commit.

☐  **Private**

You choose who can see and commit to this repository.

---



## ENTERPRISE

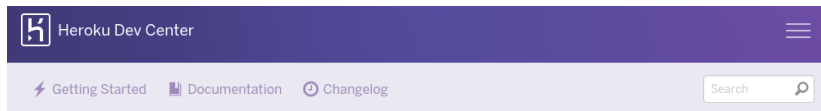
## Turn your company into an apps company

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# Heroku & Node.js



## DOCUMENTATION

- Heroku Architecture
- Deployment
- Monitoring & Metrics
- Language Support
- Command Line
- Databases & Data Management
- App Performance
- Add-ons
- Collaboration
- Security



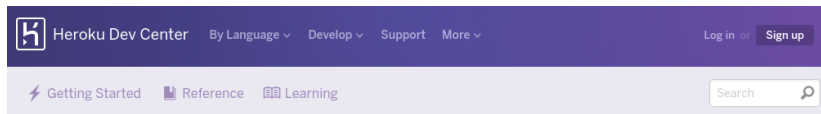
## Node.js

Heroku makes it easy to deploy and scale Node.js applications in the cloud. Run any recent version of Node.js. Deploy apps in seconds utilizing dependency caching. Easily install third-party [add-ons](#) like Redis, MongoDB & New Relic.

The screenshot shows the Heroku dashboard in a web browser. The address bar displays "Heroku, Inc. [US] | https://dashboard.heroku.com/apps". The browser's bookmark bar includes "Aplikacje", "Bookmarks", "czytelnia", "BTS / UKE", "The Math Guy", "programowanie", "ludzie", "shell", "R", and "Inne zakładki". The Heroku logo is in the top left, and a search bar with the text "Jump to Favorites, Apps, Pipelines, Spaces..." is in the top right. Below the header, a "Personal" dropdown menu is visible with a "New" button. The main content area lists four applications:

- ancient-wave-2576 (cedar-14 • United States)
- fierce-sands-8213 (Node.js • Legacy dynos • cedar • United States) - This application is highlighted with a dashed border.
- morning-inlet-1339 (cedar-14 • United States)
- serene-plateau-6341 (Node.js • Legacy dynos • cedar • United States)





## REFERENCE

Heroku Architecture

Deployment

Monitoring & Metrics

Language Support

Command Line

## Command Line

The `heroku` command-line interface (CLI) is a tool that wraps the Heroku Platform API, providing support for things like creating/renaming apps, running one-off dynos, taking backups, configuring add-ons and managing your app's state-all from the terminal. Install it by following the instructions in [Heroku Command Line](#).

- `heroku login`
- `heroku keys:add`
- `heroku keys`
- `ssh -v git@heroku.com`

# Ustawienie zmiennej PORT

```
const express = require('express');
const hbs = require('hbs');
const PORT = process.env.PORT || 3000;
let app = express();

app.set('view engine', 'hbs');
app.get('/', function (req, res) {
  res.render('index.hbs');
});

app.listen(PORT, () => {
  console.log(`App listening on port ${PORT}!`);
});
```

# Modyfikacja pliku package.json -> npm start

```
{
  "name": "web_services",
  "version": "1.0.0",
  "description": "",
  "main": "server.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "start": "node server.js"
  },
  "author": "",
  "license": "ISC",
  "dependencies": {
    "express": "^4.16.2",
    "hbs": "^4.0.1",
  }
}
```

# Deploying to heroku

- `git commit`
- `git push origin`
- `heroku create` // dodawanie zdalnego repo
- `git push heroku`
- `heroku open`